experience as more influential, whereas they rated drug cost and prescribing guidelines lower. **CONCLUSIONS:** These findings suggest that physicians and clinical pharmacists differentiate between LMWHs based on differences between products and because of hospital administrative programs (such as drug formularies). This information may be of value in designing programs to alter medication use in community hospitals.

PHP44

USING THE TRANSTHEORETICAL MODEL (TTM) TO EXPLAIN, PREDICT OR INFLUENCE PHYSICIAN PATIENT CARE BEHAVIOR: A SYSTEMATIC REVIEW

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OBECTIVES: Documented gaps between best practice (determined by scientific evidence) and actual patient care has led efforts to modify physician behavior with varying, but often modest, results. Researchers in this field have suggested implementation of strategies based on the behavior change theory, the Transtheoretical Model (TTM) of change. The TTM suggests that individuals exhibit varying stages of motivational readiness for change on a behavior and that targeting an intervention to his/her stage of change is crucial to achieving change. The aim of this systematic review was to examine research applications of the TTM for explaining, predicting or guiding interventions aimed at changing physician patient care. **METHODS:** One researcher conducted a systematic search of several databases (MEDLINE, Cochrane Database of Systematic Reviews, International Pharmaceutical Abstracts, Social Science Abstracts, PsycInfo, and others) using a three-tiered approach with increasing specificity at each level for the period, 1995 through 2004. Peer-reviewed manuscripts, of any study design, seeking to influence, explain and/or predict physician behavior using stage of change were included. **RESULTS:** Twelve studies employing at least some TTM constructs were identified. Six used surveys to explain physician behavior, four studies employed a TTM assessment to predict the success of interventions to improve screening rates (chlamydial, colorectal cancer), and two employed interviews or focus groups to explain physician counseling behavior (smoking cessation and psychological counseling) and prescribing behavior (beta blockers for myocardial infarction). **CONCLUSIONS:** Stage of change constructs have been used to explain and/or predict physician behavior, but no studies have been reported which actually tested TTM-based interventions in an experimental design. Because TTM-based interventions have been successful in achieving behavior change in other target behaviors, and since stage of change has been shown to predict physician behavior, future research to test such interventions for changing physician behavior towards evidence-based medicine is warranted.

PHP45

EVALUATING THE EFFECTIVENESS OF A PROTOCOL FOR SEDATION OF MECHANICALLY VENTILATED PATIENTS IN AN ACUTE CARE SETTING

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OBJECTIVES: To determine if the use of a protocol and special order form for the sedation of mechanically ventilated patients reduced the incidence of adverse clinical outcomes and reduced the cost of care of those patients. **METHODS:** In 2003 the hospital's costs of propofol, an intravenous sedation agent had increased by fivefold over 2002. In addition, the frequency of ventilator-associated pneumonias ("VAP"), and average duration of time for ventilation, both increased throughout 2003. An evidence-based protocol was developed, requiring certain conditions to be met before propofol could be used, and was implemented in January, 2004. In June, 2004, the pharmacy and nursing departments worked together with key physicians to ensure the protocol was being followed and appropriate selections were made from available alternatives. The length of stay in the ICU, during of ventilation, frequency of VAP, and dollars expended on intravenous sedation agents were compared between three periods: 2003 (pre-protocol), the first five-months of 2004 (protocol in place but not enforced), and the second five-months of 2004, in which the protocol was enforced by pharmacy and nursing. **RESULTS:** All measured parameters and outcomes in the second five month period showed a statistically significant improvement over both 2003 and the first five-months of 2004. Compliance with the protocol improved significantly between the first and second five month periods in 2004. There was no statistical difference in outcomes between 2003 and the first protocol period. **CONCLUSION:** The use of a sedation protocol should be successful at reducing costs of propofol and reducing the negative clinical aspects associated with mechanical ventilation. The use of a protocol built on evidence based medicine is a good first step towards improving clinical and economic outcomes; however, it must be accompanied by physician education and enforcement, and a collaboration between physicians, nursing, and pharmacy.

PHP46

IMPACT OF PRESCRIBING GUIDELINES FOR INPATIENT ANTICOAGULATION

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OBJECTIVES: Anticoagulants are widely used and represent a class of drugs that are problem-prone and have a high potential for adverse patient outcomes. As such, these drugs may be amenable to the use of prescribing guidelines. However, relatively little has been published on the effect of such guidelines on clinical outcomes or costs of care. The purpose of this study was to assess whether guidelines improve the appropriateness of prescribing, clinical outcomes, and the costs associated with use of anticoagulants in a sample of community hospitals in the United States. **METHODS:** A retrospective analysis was performed of data voluntarily collected by 15 hospitals before (July–September 2001) and after (March–May 2002) implementation of anticoagulant prescribing guidelines. Statistical analyses of both patient-level and hospital-level variables were conducted. **RESULTS:** Implementation of the guidelines resulted in a significant increase in the proportion of anticoagulants that were prescribed appropriately (59.8% v. 86.9%, $p < 0.001$). The guidelines also resulted in a shift in the type of anticoagulants prescribed (decreased use of unfractionated heparin and increased use of low-molecular-weight heparins). There was suggestive evidence, though not statistically significant, that the guidelines resulted in fewer anticoagulant-associated adverse events (total bleeding RR = 0.71) and lower costs (savings of $56.15 per patient per day). **CONCLUSIONS:** While limitations existed with the study design, sufficient benefits were identified to warrant hospitals to consider use of these or similar guidelines on a routine basis. Clearly, additional study in this area would be useful.